

## Precipitation, Displacement, Decomposition and Combination Reactions

1) Classify **each** of the reactions in the table below by writing the letter from the **key list** in the space provided.

**Key list:** precipitation – **P**

thermal decomposition – **T**

	Type of reaction (Choose from P or T)
$\text{CaCl}_2(aq) + \text{K}_2\text{CO}_3(aq) \rightarrow 2\text{KCl}(aq) + \text{CaCO}_3(s)$	
$\text{Pb}(\text{OH})_2(s) \rightarrow \text{PbO}(s) + \text{H}_2\text{O}(\ell)$	
$\text{AgNO}_3(aq) + \text{NaCl}(aq) \rightarrow \text{NaNO}_3(aq) + \text{AgCl}(s)$	

Complete the following word equations.

(a) barium chloride + magnesium sulfate  $\rightarrow$  \_\_\_\_\_ + \_\_\_\_\_

(b) sodium hydrogen carbonate  $\xrightarrow{\text{heat}}$  \_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_

(c) iron + copper sulfate  $\rightarrow$  \_\_\_\_\_ + \_\_\_\_\_

2) Classify EACH of the reactions in the table below by writing the letter from the KEY LIST in the space provided.

**Key list:** precipitation – P

thermal decomposition – T

	Type of Reaction (Choose from P or T)
$2\text{AgNO}_3(aq) + \text{BaCl}_2(aq) \rightarrow 2\text{AgCl}(s) + \text{Ba}(\text{NO}_3)_2(aq)$	
$\text{MgCO}_3(s) \rightarrow \text{MgO}(s) + \text{CO}_2(g)$	

3) Classify the reactions in (a) to (d) below as

- precipitation (P)
- thermal decomposition (T)

Reaction	Reaction type
$\text{Ca}(\text{OH})_2(s) \rightarrow \text{CaO}(s) + \text{H}_2\text{O}(g)$	
$\text{CuCl}_2(aq) + \text{K}_2\text{CO}_3(aq) \rightarrow \text{CuCO}_3(s) + 2\text{KCl}(aq)$	